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## 510(k) Summary

Applicant/Sponsor: Medacta International SA

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Contact Person:

Mr. Adam Gross

Director of Regulatory, Quality and Compliance

Medacta USA

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Date Prepared:

December 14, 2012

## **DEVICE INFORMATION**

Trade/Proprietary Name: MectaLIF Anterior

Common Name: Anterior Intervertebral Body Fusion Device

Classification Name: intervertebral fusion device with integrated fixation, lumbar

21 CFR 888.3080

Class II

Device Product Codes: OVD

#### Predicate Devices:

K101310 Vu aPOD, Integra Spine K073109 Stalif TT, Centinel Spine K101301 Stalif Midline, Centinel Spine K110927 MectaLIF, Medacta International

K072253 SynFix-LR, Synthes K022791 ATB System, Synthes K071726 Zuma, SeaSpine

K082252 Independence, Globus Medical

K013665 Pyramid plate, Medtronic

## **Product Description**

The MectaLIF Anterior is an anterior interbody fusion device indicated for use in patients with degenerative disc disease (DDD) at one or two contiguous levels from L2 to S1. MectaLIF Anterior is intended to be used with bone screws provided and requires additional supplementary fixation. MectaLIF Anterior consists of a disc spacer made of PEEK-OPTIMA LT1: Implant Grade Polyetheretherketone (ASTM F 2026) which contains three Tantalum Markers (ISO 13782 / ASTM F 560), bone screws made of Titanium: Ti6Al4V ELI (ISO 5832-3/ASTM F 136), and a plate made of Titanium: Ti6Al4V ELI (ISO 5832-3/ASTM F 136). The interior of the disc spacer can be packed with autograft or autologous bone graft. The plate comes in three different designs (Flush, Long, and L5-S1) and is secured to the disc spacer via an interlocking mechanism. The disc spacer and attached plate are secured to the vertebral body with the bone screws. The Flush and Long plates are used with four bone screws while the L5-S1 plate is used with three bone screws.

### Indications for Use

The MectaLIF Anterior is an anterior interbody fusion device indicated for use in patients with degenerative disc disease (DDD) at one or two contiguous levels from L2 to S1. These DDD patients may also have up to Grade I spondylolisthesis or retrolisthesis at the involved level(s). The interior of the spacer component of the MectaLIF Anterior can be packed with autograft or autologous bone graft.

DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies.

The MectaLIF Anterior is a system intended to be used with the integrated bone screws provided and requires additional supplementary fixation such as pedicle screws and rods

These patients may have had a previous non-fusion spinal surgery at the involved spinal level(s).

These patients should be skeletally mature and have had six months of non-operative treatment.

### Comparison to Predicate Devices

The indications for use, design features and materials of the MectaLIF Anterior are substantially equivalent to those of the predicate devices. The fundamental scientific technology of the modified devices has not changed relative to the predicate devices. The safety and effectiveness of the MectaLIF Anterior are adequately supported by the substantial equivalence information, materials information, and analysis data provided within this Premarket Notification.

## **Performance Testing**

The MectaLIF Anterior was tested per ASTM F2077 and ASTM F2267 using the worst-case device for each of the following tests:

- 1. Static Axial Compression
- 2. Dynamic Axial Compression
- 3. Static Compression-Shear
- 4. Dynamic Compression-Shear
- 5. Static Torsion
- 6. Dynamic Torsion
- 7. Subsidence
- 8. Expulsion

The performance testing demonstrated that the MectaLIF Anterior is not worst case compared to predicate data.

## Conclusion:

Based on the above information, the MectaLIF Anterior can be considered as substantially equivalent to its predicate devices.

Letter dated: May 17, 2013



Food and Drug Administration 10903 New Hampshire Avenue Document Control Center – WO66-G609 Silver Spring, MD 20993-0002

Medacta International SA % Medacta USA Mr. Adam Gross Director of Regulatory, Quality and Compliance 4725 Calle Quetzal, Unit B Camarillo, California 93012

Re: K124034

Trade/Device Name: MectaLIF Anterior Regulation Number: 21 CFR 888.3080

Regulation Name: Intervertebral body fusion device

Regulatory Class: Class II Product Code: OVD Dated: April 11, 2013 Received: April 15, 2013

Dear Mr. Gross:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you; however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical

device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <a href="http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm">http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm</a>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Mark NFMelkerson -S

Mark N. Melkerson Director Division of Orthopedic Devices Office of Device Evaluation Center for Devices and Radiological Health

Enclosure

# **Indications for Use**

510(k) Number: K124034
Device Name: MectaLIF Anterior
Indications for Use:
The MectaLIF Anterior is an anterior interbody fusion device indicated for use in patients with degenerative disc disease (DDD) at one or two contiguous levels from L2 to S1. These DDD patients may also have up to Grade I spondylolisthesis or retrolisthesis at the involved level(s). The interior of the spacer component of the MectaLIF Anterior can be packed with autograft or autologous bone graft. DDD is defined as back pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies.  The MectaLIF Anterior is a system intended to be used with the integrated bone screws provided and requires additional supplementary fixation such as pedicle screws and rods.  These patients may have had a previous non-fusion spinal surgery at the involved spinal level(s).
These patients should be skeletally mature and have had six months of non-operative treatment.
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Prescription Use x AND/OR Over-The-Counter Use (21 CFR 801 Subpart C)
(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)
Concurrence of CDRH, Office of Device Evaluation (ODE)
Ronald P. Jean -S
(Division Sign-Off) Division of Orthopedic Devices

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